



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,902	03/29/2004	Hiroto Yukawa	2004-0499	1092

513 7590 03/27/2006

WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER

LEE, SIN J

ART UNIT	PAPER NUMBER
----------	--------------

1752

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Om

Office Action Summary	Application No.	Applicant(s)	
	10/810,902	YUKAWA ET AL.	
	Examiner	Art Unit	
	Sin J. Lee	1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/376,304.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the statements of common ownership, previous 103(a) rejection on claims 10-14 over Oomori'587 in view of Yoshimoto et al (EP'032) and previous 103(a) rejection on claims 10-14 over Oomori'041 in view of Yoshimoto et al (EP'032) and Suwa et al'504 are hereby withdrawn.

2. In view of Terminal Disclaimers filed on December 27, 2005, previous double patenting rejection on claims 10-14 over U.S. Pat. '587 in view of Yoshimoto et al (EP'032) and previous double patenting rejection on claims 10-14 over U.S. Pat. '041 in view of Yoshimoto et al (EP'032) and Suwa et al'504 are hereby withdrawn.

3. Due to newly cited prior arts, the following rejections are made non-final. The Examiner sincerely apologizes for any inconvenience caused by this.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Oomori et al (US 6,815,144 B2)

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

Art Unit: 1752

under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

In Examine 1, Oomori teaches the following composition:

A positive-working photoresist composition was prepared by uniformly dissolving, in 800 parts of propyleneglycol monoethyl ether acetate,

60 parts of a first copolymeric resin, referred to as the resin I hereinafter, having a weight-average molecular weight of 10,000 and consisting of 65% by moles of hydroxystyrene units, 20% by moles of styrene units and 15% by moles of tert-butyl acrylate units,

40 parts of a second copolymeric resin, referred to as the resin II hereinafter, having a weight-average molecular weight of 10,000 and consisting of 65% by moles of hydroxystyrene units, 30% by moles of styrene units and 5% by moles of tert-butyl acrylate units,

3 parts of bis(4-tert-butylphenyl) iodonium nonafluorobutane sulfonate,

0.5 part of triethanolamine, and

0.5 part of salicylic acid,

Both of those copolymeric resins described above meet present limitation for the component (A). The salicyclic acid (another name for 2-hydroxy benzoic acid) is being used as Oomori's component (D) (see col.6, lines 5-26). Oomori teaches that a carboxylic acid (such as salicyclic acid) can be interchangeably used with a phosphorous-containing oxo acid as his component (D) (see col.6, lines 5-13). As a specific example for the phosphorous-containing oxo acid, Oomori *discloses* phenylphosphonic acid (see Example 3). Therefore, it is the Examiner's position that one skilled in the art would readily envisage using phenylphosphonic acid in place of salicyclic acid in Oomori's Example 1. Therefore, Oomori teaches present inventions of claims 10-14.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 10-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 5-7 and 9 of U.S. Patent No. 6,815,144 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

Claims 1-3, 5, 6 of Pat.'144 teach present components (A), (B), (D) and (E). Claims 7 and 9 of Pat.'144 teach that the composition of claim 1 can further comprise a phosphorus-containing oxo acid compound such as phenylphosphonic acid in the amount of 0.001-10 parts by weight per 100 parts by weight of the component (A). This range overlaps with present range of 0.01-5 parts by weight of the phosphorus-containing oxo acid and thus renders present range *prima facie* obvious. In the case

“where the [claimed] ranges overlap or lie inside ranges disclosed by the prior art,” a prima facie case of obviousness would exist which may be overcome by a showing of unexpected results, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Therefore, Pat.’144 renders obvious present inventions of claims 10-14.

8. Claims 10-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 15, 16 and 22 of U.S. Patent No. 6,890,697 B2 in view of Yoshimoto et al (EP 0 540 032 A1).

Claims 1, 15, 16 and 22 of Pat.’697 teach present components (A), (B), (D) and (E). Pat.’697 does not teach present component (C). Yoshimoto et al, a prior art which teaches a positive type photoresist composition comprising a resin having anti-alkali-dissolution groups in the molecules (which becomes alkali soluble by a reaction with acid), a photoacid generating compound, teaches (pg.3, lines 16-24) that the adhesiveness of a resist to a substrate is markedly improved by adding organic phosphorus acid compound to the photoresist in an amount of 0.001 to 10wt% (based on the weight of the resin). As preferred examples for the organic phosphorous compound, Yoshimoto teaches (pg.9, lines 43-45) phenylphosphinic acid as well as phenylphosphonic acid (see Table 1 on pg.16). Based on Yoshimoto’s teaching, it would have been obvious to one skilled in the art to add an organic phosphorus acid compound such as phenylphosphinic acid or phenylphosphonic acid to Pat.’697’s photoresist composition in order to improve the adhesiveness of the resist to a substrate as taught by Yoshimoto et al. Also, since the taught amount for the phosphorus acid compound to be added overlaps with the presently claimed range, the prior art’s range

Art Unit: 1752

would have made the present range prima facie obvious. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Therefore, Pat.'697 in view of Yoshimoto would render obvious present inventions of claims 10-14.

9. Claims 10-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 6 and 7 of U.S. Patent No. 6,869,745 B2 in view of Yoshimoto et al (EP 0 540 032 A1).

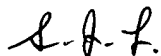
Claims 1-3, 6 and 7 of Pat.'745 teach present components (A), (B), (D) and (E). Pat.'745 does not teach present component (C). Yoshimoto et al, a prior art which teaches a positive type photoresist composition comprising a resin having anti-alkali-dissolution groups in the molecules (which becomes alkali soluble by a reaction with acid), a photoacid generating compound, teaches (pg.3, lines 16-24) that the adhesiveness of a resist to a substrate is markedly improved by adding organic phosphorus acid compound to the photoresist in an amount of 0.001 to 10wt% (based on the weight of the resin). As preferred examples for the organic phosphorous compound, Yoshimoto teaches (pg.9, lines 43-45) phenylphosphinic acid as well as phenylphosphonic acid (see Table 1 on pg.16). Based on Yoshimoto's teaching, it would have been obvious to one skilled in the art to add an organic phosphorus acid compound such as phenylphosphinic acid or phenylphosphonic acid to Pat.'745's photoresist composition in order to improve the adhesiveness of the resist to a substrate as taught by Yoshimoto et al. Also, since the taught amount for the phosphorus acid compound to be added overlaps with the presently claimed range, the prior art's range would have made the present range prima facie obvious. In re Wertheim, 541 F.2d 257,

191 USPQ 90 (CCPA 1976). Therefore, Pat.'745 in view of Yoshimoto would render obvious present inventions of claims 10-14.

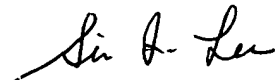
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee
March 16, 2006



SIN LEE
PRIMARY EXAMINER